

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-1:** Please refer to pages 38 through 42 of the Company's filing. Explain how each pipeline and regional supply project change "will have a direct impact on Berkshire's customers" and how the Company plans to take advantage of these changes in the next five years.

**Response:** Many of the projects listed on pages 38 through 42 of the Company's filing will have an indirect and, in some cases, direct impact on the Company's customers. This is due to several factors. First, all stakeholders in the region benefit in terms of cost and reliability when new resources or greater competition are added to the region. The Company expects to secure direct benefits in, for example, gas supply solicitations. A second area of benefit relates to the Company's participation in the Energy East / BP Energy Alliance. While Berkshire will not have a direct benefit from the projects that utilize Algonquin or Iroquois, there will be an indirect benefit as a member of the Energy East alliance. For instance, if another alliance company uses more Algonquin, Iroquois, or other pipeline gas, that would free up more Tennessee pipeline gas which could benefit Berkshire's customers. Finally, Berkshire will have a direct benefit from the Tennessee Gas Pipeline project, "Northeast ConneXion NE". As stated on page 55 of the Company's filing, Berkshire expressed an interest in this project and has determined that it is economically beneficial to enter into an agreement for a maximum daily quantity of 4,000 dekatherms per day of this year round transportation service. The Company expects to present a petition on this project to the Department at a later date. Overall, any additional source of gas into New England is a potential benefit to customers which should result in lower overall prices and greater reliability.

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**Question**

**DTE 2-2:** Please refer to page 44 of the Company's filing. Explain in what context and by what means did the Company seek input from marketers and how this input affected the Company's contract decisions. Include any evidence of such communication.

**Response:** Attachment DTE 2-2(a) provides copies of the letters the Company issued to marketers prior to finalizing its contract decisions. The marketers issued the letters included:

Amerada Hess Corporation  
Energy East Solutions, LLC  
Global Companies, LLC.  
Metromedia Energy  
O'Connell Energy Services  
Sprague Energy Corporation  
Select Energy, Inc.

The Company did not receive any responses to the communications.

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DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question  
DTE 2-3:**

Please answer the following:

- (a) Discuss the ways by which the Company continually monitors the market and evaluates resource options to maintain an optimal, least-cost and reliable resource portfolio.
- (b) Detail the process by which the Company solicits proposals for incremental and replacement resources.
- (c) Discuss how the Company evaluates and monitors the “minimum impact upon the environment” condition as stated on page 33 of the Company’s filing.

**Response:**

- (a) The Company monitors the market through a variety of means including its participation in the Energy East / BP Energy Alliance as well as through discussions with representatives from other LDCs in the region, its participation in NGA, industry conferences, and monitoring energy publications. Further, the Company monitors new supply and pipeline opportunities to ascertain whether any of those opportunities may benefit Berkshire’s customers now or in the future.
- (b) A request for proposals (RFP) is typically issued by the Company when soliciting proposals for incremental and replacement resources. In some instances the Company issues a stand-alone RFP and, in other cases, will issue a joint RFP. For instance, the current Canadian gas supply resources were solicited with members of the Boundary Group in 2002. Further, firm spot replacement supply was included as part of the Company’s proposal for optimization in 2003. Additionally, the replacement of the Company’s current gas supply resources were solicited through an RFP. Finally, the Company recently issued an RFP to replace the loss of its peaking supply from Pittsfield Generating Company and is in the process of reviewing those responses.
- (c) The Company evaluates and monitors the “minimum impact upon the environment” by considering resources and capacity options that might be available and how those resources or capacity additions might affect the environment. For instance, the Company’s recent addition of an LNG storage and vaporization facility at the Whately site was determined to be the project alternative with the minimum environmental impact that addressed the identified need. The Berkshire Gas Company, EFSB 99-2/D.T.E. 99-17, p. 64 (1999).

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**Date:** May 26, 2005

**Question**

**DTE 2-4:** Please rank, in order of importance, the various price and non-price factors which the Company takes into consideration when making decisions regarding the replacement of its various gas supply and transportation capacity contracts. Provide reasons for the rankings.

**Response:** The Company will consider pricing parameters, length of contract, operating conditions, and other terms and conditions, when negotiating for replacement of its various gas supply and transportation capacity contracts. First and foremost, the Company will always seek to maintain as much flexibility in its contracts, especially in light of migration. Depending on the circumstances, certain options to consider may be more important in one scenario versus another scenario. However, Berkshire will always seek to balance reliability with other considerations.

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-5:** Please answer the following:

- (a) How many of the Company's existing commodity contracts contain no load loss provisions? Also, please provide this information in terms of units of gas.
- (b) If applicable, please identify in a tabular format the MDQ and the per unit commodity cost for all of the Company's existing commodity supply contracts that have no load loss provisions for each of the next five years.
- (c) In qualitative and quantitative terms and for each of the next five years, please describe the weighted average commodity cost of gas (WACCOG) impact the Company's existing gas purchase contracts (with no load loss provisions) will have on captive firm customers. Within this response, please identify the Company's migration assumptions.

**Response:** Intentionally Omitted.

**\*\*CONFIDENTIAL AND PROPRIETARY\*\***  
**\*\*PROTECTIVE TREATMENT\*\***

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**THE BERKSHIRE GAS COMPANY  
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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-6:** In a tabular form,

- (a) Please provide a total figure, expressed in MMBtus/day, that represents the long-haul capacity the Company is currently entitled to transport from the west (i.e., from the Gulf of Mexico);
- (b) Provide a total figure, expressed in MMBtus/day, that represents the short-haul capacity the Company is currently entitled to transport from the west (i.e., from central Pennsylvania and New York);
- (c) Provide a total figure, expressed in MMBtus/day, that represents the capacity the Company is currently entitled to transport from Western and Eastern Canada; and
- (d) How does the Company's total contracted pipeline capacity relate to its supply resources?

**Response:**

<b>Berkshire Assets (Available - 5/1/2005)</b>		<b>Released thru 5/1/05</b>	<b>Remaining Asset (Available 5/1/2005)</b>	
<b><u>Longhaul:</u></b>			<b><u>Longhaul:</u></b>	
K 37679 -	14,751	1,200	K 37679 -	13,551
<b><u>Shorthaul:</u></b>			<b><u>Shorthaul:</u></b>	
K 779 -	7,222	1,200	K 779 -	6,022
K 10776 -	3,728	0	K 10776 -	3,728
K 8603 -	3,599	0	K 8603 -	3,599
K 584 -	1,305	108	K 584 -	1,197
<b><u>Sub. Tot.</u></b>	<b>30,605</b>	<b>2,508</b>	<b><u>Sub. Tot.</u></b>	<b>28,097</b>
<b><u>Boundary:</u></b>			<b><u>Boundary:</u></b>	
K 2063 -	421	Co. Managed	K 2063 -	Co. Managed
K 2064 -	636	Co. Managed	K 2064 -	Co. Managed

The Company has the capability to match its supply resources to its contracted pipeline capacity through its existing contract with BP Energy and for this past winter with Chevron Texaco. As stated on page 55 of the Company's filing, an RFP will be issued during 2005 to replace the Chevron Texaco volumes for the upcoming winter period.

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-7:** Please provide a table that indicates, for each supply resource contract, the elements or conditions that provide for the necessary degree of reliability needed to maintain the Company's supply reliability. Indicate those elements of the contract that provide for supply flexibility.

**Response:** Please see Attachment DTE 2-7(a).

**\*\*ATTACHMENT IS CONFIDENTIAL AND PROPRIETARY\*\***

**\*\*PROTECTIVE TREATMENT\*\***

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**Witness:** Karen L. Zink/Jennifer M. Boucher

**Date:** May 26, 2005

**Question**

**DTE 2-8:** Provide a table that indicates, for each supply resource contract, how that contract fits into the Company's efforts to assure supply diversity.

**Response:** Please refer to the response to Information Request DTE 2-7.



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**Witness:** Karen L. Zink/Jennifer M. Boucher

**Date:** May 26, 2005

**Question**

**DTE 2-9:** For each long-term gas supply, transportation capacity, and storage contract discussed in the Company's filing, please provide, in a tabular form, the following information:

- (a) date the contract was entered into
- (b) the duration and date of expiration of the contract
- (c) the date that the contract was filed for Department review
- (d) docket number
- (e) the date the Department issued a decision.

**Response:** Please see Attachment DTE 2-9(a).

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**Witness:** Karen L. Zink/Jennifer M. Boucher

**Date:** May 26, 2005

**Question**

**DTE 2-10:** Please discuss the recall right provisions imposed by Berkshire for each of the Company's capacity release transactions in the past five years, if any.

**Response:** Capacity release transactions are now pursued through the Company's optimization alliance with certain affiliates and BP Energy Company. The current alliance agreement is for a three-year term and was approved in The Berkshire Gas Company, D.T.E. 04-47 (2004). Prior alliance agreements were reviewed and approved in The Berkshire Gas Company, D.T.E. 01-41 (2001) and The Berkshire Gas Company, D.T.E. 02-19 (2002).

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-11:** Please indicate the number of firm sales customers that are dual-fuel capable and the annual volumes associated with these customers.

**Response:** The Company is not aware of any firm sales customers that are dual-fuel capable.

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-12:** Please provide a list of all firm transportation customers on the Company's system. Indicate how many of these customers' upstream capacity requirements are provided by the Company, as part of the mandatory capacity assignment.

**Response:** Please see Attachment DTE 2-12(a).

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-13:** Please refer to pages 65 and 66 of the Company's filing.

- (a) Discuss the decision-making process that the Company engages in when purchasing gas for storage during the off-peak season.
- (b) Include in the discussion a list of all factors that the Company considers when determining the appropriate amount and price at which gas is procured for injection as well as the factors which determine the timing of injection and withdrawal of gas from storage.
- (c) Show graphically, and on a monthly basis, the amount of gas that the Company injected or withdrew from storage for each of the past five years.
- (d) Show graphically, and on a monthly basis, the amount of gas that the Company withdrew from storage for each of the past five years expressed as a percentage of the Company's total sendout for each month.
- (e) Discuss whether or not futures and options may be helpful tools in procuring gas for storage.

**Response:** (a) and

- (b) Underground storage capacity is an essential tool in the Company's cost minimization strategy. Storage allows the Company to utilize its long-haul pipeline capacity between the production fields and the storage fields at a high load factor. Storage also allows the Company to serve peak period requirements with lower cost, off-peak gas, and to manage minimum take requirements. Storage is also a valuable means of managing short-term fluctuations in demand.

For several years, Berkshire has purchased its gas supply for injection into its storage fields in a ratable fashion. As part of its current contract with BP Energy, the Company pays for gas injected into storage based on an index price for 1/12<sup>th</sup> of its total storage requirement for the months of April and October and 1/6<sup>th</sup> for the months of May through September. It is important to note that the payment is based on "paper injections". That is, the amount of physical gas that is injected into storage is at the discretion of BP Energy. The storage capacity that the Company holds with Dominion and Tennessee Gas Pipeline are assets that are optimized by BP Energy as part of the Alliance agreement between the Company

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**Question**

**DTE 2-13 (cont'd.):**

and the other Energy East LDC's. BP Energy will physically inject gas into storage on behalf of the Company at its option. Berkshire is not liable for any changing market conditions that may be present at the time of the physical injection.

(c) and

(d) Please refer to Attachment DTE 2-13(a).

(e) Please refer to the response to parts in (a) and (b).

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**Date:** May 26, 2005

**Question**

**DTE 2-14:** Please refer to pages 65 and 66 of the Company's filing. For each of the storage facilities in Berkshire's portfolio, provide a narrative of any restrictions (seasonal or otherwise) that affect the level of gas injections or withdrawals.

**Response:** Please see Attachment DTE 2-14(a).

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**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question  
DTE 2-15:**

Please answer the following:

- (a) Explain whether the Company used any risk management tools, financial or physical, in the past five years to mitigate gas price volatility? If the answer is in the affirmative, how successful were they?
- (b) If the answer to (a) is negative, explain why, highlighting any problems and/or difficulties in the use of risk management tools.
- (c) Does the Company plan to use any risk management tools in the next five years to reduce gas price volatility? If the answer is in the affirmative, explain the Company's choice of risk management tools. If the answer is negative, explain why.

**Response:**

- (a) Berkshire notes that it has been very active and creative in managing its resource portfolio to ensure least cost gas and reliable service for its customers, which should result in protecting customers from the kind of high gas price volatility that has been occurring since the winter of 2000-2001. It is important to recognize the steps taken to date to address these concerns. First, Berkshire has utilized a range of opportunities in its resource management including restructuring contracts to be both flexible in its pricing provisions as well as the amount of gas purchased or delivered and the length of the contracts. Second, the Company has worked with third party providers, most recently BP Energy, to help the Company gain more value in its portfolio by optimizing the portfolio through various means, including capacity release and off-systems sales. It is important to note, however, that the Company has not entered into any risk management transaction directly, rather, the third party managing or helping to manage the portfolio enters into the transaction on the Company's behalf in order to secure savings.
- (b) Please refer to (a) above.
- (c) Berkshire believes that LDC's should have clear direction as to the nature of permissible risk-management transactions. Berkshire has been able to rely upon the clear directives of the Department in this regard. See, D.T.E. 01-41; D.T.E. 02-17; D.T.E. 04-47. Berkshire believes that the Department should continue to allow the LDCs to choose whatever risk-management instruments will result in least cost, reliable service for its customers, as long as the LDC does not engage in any speculative financial arrangements. Alternatively, if an LDC wishes to pursue more



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**Question**

**DTE 2-15 (cont'd.):**

speculative strategies, the LDC should be able to secure relevant regulatory approvals and, in turn, be able to rely upon the terms and conditions of such approvals. The directives in D.T.E. 01-100 are one example of a set of appropriate regulatory conditions.

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**Witness:** Karen L. Zink/Jennifer M> Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-16:** Please refer to pages 9 and 10 of the Company's filing.

- (a) Provide figures showing the load reductions resulting from the implementation of the Company's DSM and other conservation programs in the past five years by customer class.
- (b) How much of the forecasted increases in demand in the next five years can be met with demand-side management programs?
- (c) Compare the costs and environmental impacts of DSM, relative to meeting demand with increased levels of other resources.

**Response:**

- (a) As a result of the implementation of the Company's DSM and other energy efficiency conservation programs over the past five years, the residential class has experienced 51,900 Mcf in load reductions while the commercial and industrial class has experienced 128,500 Mcf in load reductions.
- (b) The Company has projected approximately 103,199 Mcf of savings attributed to its DSM/Energy Efficiency efforts over the next five years.
- (c) During the period 2001 through 2005, the Company spent a total of \$2,789,890 on its DSM / Energy Efficiency programs. The Company's total avoided costs for the same time period were \$4,928,635 resulting in a benefit cost ratio (BCR) of 1.77. The Company's avoided cost calculations do not include environmental externalities.

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**Date:** May 26, 2005

**Question**

**DTE 2-17:** Please discuss the cost implications of and variance between forecasted sendout and actual sendout in the Company's last forecast and supply plan.

**Response:** The Company's forecast has been extremely accurate. See, e.g., Forecast and Supply Plan, p. 25. See also the response to Information Request DTE 1-39. Berkshire's gas supply contracts do not contain "take or pay" provisions that would leave its customers paying for gas it does not take into its distribution system. In fact, the Company has been proactive by continually reevaluating its portfolio and making necessary changes to minimize costs without sacrificing reliability. These decisions have provided notable savings to the Company's firm ratepayers.

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-18:** Please refer to page 58 of the Company's filing. Explain how certain, in probability terms, the Company is that "[t]here would also be approximately 16,650 Mcf of marketer pipeline gas flowing during a cold snap." In your response, discuss any contingency plans that the Company has in place to serve customers' needs during a cold snap in case all or some of the 16,650 Mcf of marketer pipeline gas is not realized.

**Response:** The Company based the estimate of 16,650 Mcf of marketer pipeline gas flowing during a cold snap on a design heating degree day ("HDD") of 75. The estimate is based on the peak day usage of each customer on that 75 HDD. As noted in the response to Information Request DTE 2-19, the Company has never had problems in terms of the availability of marketer pipeline gas, including during design days or cold snaps. Accordingly, the Company expects that the probability of achieving the stated level of available marketer pipeline gas would be close to 100%. The contingency plans that the Company has in place to serve customers needs during a cold snap in case all or some of the 16,650 Mcf of marketer pipeline gas is not realized would include, but not be limited to, utilizing the Company's propane vaporization facilities or increasing the LNG vapor production at the Company's Whately LNG plant. It is important to note that the Company experienced a 73 HDD on January 15, 2004 and a 70 HDD on January 21, 2005 and there were no issues with marketer pipeline gas delivery on either of these days.

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**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-19:** Please explain whether Berkshire had any problems with regard to the timely delivery of marketer pipeline gas in the past five years. In your response, list the marketers involved, the frequency of non-delivery of gas, the total volumes involved in each occurrence, the effect on service reliability, and how the Company handled each situation.

**Response:** Berkshire has not had any problems with regard to the timely delivery of marketer pipeline gas in the past five years. All suppliers delivering transportation gas on Berkshire's system have performed well and within the Terms and Conditions in effect at that time and there has not been a problem with non-delivery. Normal imbalances and penalties have occurred for both daily and end of the month volumes that were within the tolerances specified in the Terms and Conditions and appropriate charges were assessed, collected and returned to firm customers through the LDAC.

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**Date:** May 26, 2005

**Question**

**DTE 2-20:** Please refer to page 70 of the Company's filing. Provide a map of the Company's distribution system indicating the locations of the Company's peaking propane plants.

**Response:** Please see Attachment DTE 2-20(a).

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**Question**

**DTE 2-21:** Please refer to pages 70 of the Company's filing. Provide a table showing actual annual sendout data from each of the Company's propane plants for the last five years and the projected sendout from each propane plant in each of the forecast years.

**Response:** Please see Attachment DTE 221(a) for historical sendout from each of the propane plants for the past five years. For each of the five forecast "normal" years the Company does not project any sendout for the propane plants. However, the plants may be used to maintain the integrity of Berkshire's distribution system. Alternatively, for each of the five forecast "design" years the Company does project sendout for the propane plants. The sendout by plant is as follows:

	(Mcf)	
<u>Heating Season</u>	<u>Pittsfield</u>	<u>N. Adams</u>
2004-2005	950	633
2005-2006	510	340
2006-2007	23,918	15,945
2007-2008	24,100	16,067
2008-2009	55,496	36,997

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**Question**

**DTE 2-22:** Please develop an integrated cost of propane as delivered to the utility's distribution system per MMBtu for each of the last five years. With the cost of delivered propane as a base, please provide a chart relating annual average costs of propane expressed as \$/MMBtu to other peaking and storage options for each of the last five years.

**Response:** Please see Attachment DTE 2-22(a).

**\*\*ATTACHMENT IS CONFIDENTIAL AND PROPRIETARY\*\***

**\*\*PROTECTIVE TREATMENT\*\***



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**Question**

**DTE 2-23:** Please refer to page 71 of the Company's filing. Explain how the construction of the LNG storage and vaporization facility in Whately has contributed to the Company's goal of "Least Cost Supply Strategy."

**Response:** Construction of the LNG facility was one of several alternatives that the Company considered when addressing the reliability concern it had in the Eastern Division of its service territory. It was ultimately decided that building an LNG facility in Whately would be the least cost alternative to meet such need. Indeed, the Energy Facilities Siting Board accepted the Company's analysis that an alternative strategy involving pipeline construction would be costlier by a factor of three. The Berkshire Gas Company, EFSB 99-2/D.T.E. 99-17, pp. 28-30 (1999). The LNG facility has also given the Company a high degree of reliability that it did not have in the eastern portion of its distribution system. Thus, Berkshire's creative planning approach secured multiple benefits for customers and clearly contributed to a least cost resource strategy.

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**Question  
DTE 2-24:**

Please discuss any promotional activities or programs that the Company undertook in the past five years to increase growth on its system. Discuss how successful these activities or programs were. Also discuss any promotional activities or programs that the Company plans to undertake in the next five years to increase growth on its system.

**Response:** The Company had the following promotional activities or programs in the past five years:

- ~~///~~ 2000: For new R3 customers: Gas conversion burners at no cost
- ~~///~~ 2001: For R1 to R3 Conversions and for new R3 customers: Gas boiler or furnace at no cost.
- ~~///~~ 2002: For R1 to R3 Conversions and for new R3 customers: Gas boiler or furnace up to 110,000 Btu at no cost; larger models required a customer contribution of \$249.
- ~~///~~ 2003: For R1 to R3 Conversions and for new R3 customers: Gas boiler or furnace up to 105,000 Btu at no cost; larger models required a customer contribution based on size of unit.
- ~~///~~ 2004: For R1 to R3 Conversions and for new R3 customers: Gas boiler or furnace up to 75,000 Btu at no cost; larger models required a customer contribution based on size of unit.

During this period, the Company converted 1,578 customers utilizing these programs.

Over the forecast period, the Company anticipates offering similar programs and incentives, since it believes its major growth opportunities continue to be converting both low-use (R1) customers and non-customers from other heating sources, especially fuel oil.

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**Question**

**DTE 2-25:** What price does city gate natural gas have to reach in order to make LNG a profitable alternative resource for base-load supplies?

**Response:** Intentionally Omitted.

**\*\*CONFIDENTIAL AND PROPRIETARY\*\***

**\*\*PROTECTIVE TREATMENT\*\***

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**Question**

**DTE 2-26:** Please refer to page 58 of the Company's filing. The Company states that it "is confident in its ability to serve its customers in an extended cold snap."

- (a) Please explain the difference, if any, between a cold snap and an extended cold snap.
- (b) Please explain whether the Company has had problems serving customers' needs during a cold snap or an extended cold snap in the past 20 years.
- (c) Please provide a statistically derived confidence interval for the Company's "ability to serve its customers in an extended cold snap."

**Response:** The Company did not intend to imply any difference in terms of cold snap planning standards, but merely to highlight that this planning standard is important because it helps the Company to evaluate the adequacy of its resources over an extended period. The Company has not experienced particular problems in maintaining reliable service during cold snaps in the past 20 years. The Company attributes this factor to the quality and flexibility of its resource plan. The Company's cold snap analysis (in this case, 1-in-30 years or approximately 3%) reflects an extreme level and the ability to serve this demand provides the Company with a high degree of confidence in its resource plan.

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**Date:** May 26, 2005

**Question**

**DTE 2-27:** Please discuss any major problems that the Company has had in serving customers in the past five years during peak and off-peak periods and how the Company resolved those problems.

**Response:** The Company has not had any gas supply interruptions where the Company was not able to provide service to customers during peak or non-peak periods in the past five years.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-28:** Please answer the following:

- (a) Please provide the dates during the past five years when Berkshire interrupted gas service to any of its firm supply customers.
- (b) Identify the customer groups that were interrupted, length of service interruption, and provide a rationale for interruption.
- (c) Identify any interruptible customers and quasi-firm transportation customers that continued to receive gas supplies during these interruptible periods. Also, list the volume of gas taken by each of these customer types during this period on a monthly basis.

**Response:** The Company has not interrupted gas service to any of its firm supply customers during the past five years with the exception of rare system improvement activities. Customers have been provided substantial notice of these improvement activities and, where possible, scheduling accommodations have been made for the benefit of affected customers. The Company is committed to working with customers to mitigate the impact of necessary system maintenance or improvements.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question  
DTE 2-29:**

Please indicate whether the Company made any spot gas purchases in the past five years. With regard to the Company's purchase of spot gas, discuss:

- (a) the volume of spot purchases the Company has made over the past five years.
- (b) how the Company determines what quantity of gas to purchase on the spot market and how it selects vendors.
- (c) the source of these purchases.
- (d) the percentage of total gas purchases the Company made that was spot purchases over the past five years. Please explain what factors determined these percentages.
- (e) the point of purchase of spot gas (i.e., the wellhead or the city-gate).
- (f) the advantages and disadvantages of purchasing spot gas at both the wellhead and the city-gate.
- (g) the Company's inherent ability to maintain low cost gas at the targeted standards of reliability.
- (h) the effects of a significant rise in spot prices (ten percent increase, 25 percent increase, 50 percent increase) on the Company's CGAC.
- (i) please provide a chart reflecting the commodity price paid by Berkshire for each commodity contract in the past one, two, three, four, and five years.
- (j) whether the purchases occurred during the heating or non-heating season.

**Response:**

- (a) Please see the Attachment 2-29(a).
- (b) Berkshire's gas supply planning process determines the volume of gas required for that month as well as an average daily requirement, including storage injections. This process is based on the Company's forecasted sendout under normal weather conditions for a particular month. If Berkshire's service territory experiences colder than normal weather during a month, the Company's sendout will increase, as will its supply requirement. As a member of the BP Energy / Energy East Alliance the Company also has the capability of purchasing additional spot gas with various pricing options through the alliance.
- (c) Please see Attachment DTE 2-29(a).
- (d) Please see Attachment DTE 2-29(a).
- (e) Please see Attachment DTE 2-29(a).

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Question  
DTE 2-29 (cont'd.):**

- (f) The advantages and disadvantages of purchasing gas at the wellhead or city-gate is dependent upon the market conditions at the time of the purchase as well as the source of the gas. For example, if the Company were able to buy gas at Dracut and bring that gas to its city-gate at a lower price than gas from the production area transported on Berkshire's long-haul contract, the transaction would contribute to the Company's goal of least cost dispatch. Conversely, during periods of highly volatile market area prices, Berkshire would rely on purchasing gas in the production area and transporting the gas to its city-gates on its long-haul contract. Berkshire considers all these options when considering potential spot purchases.
- (g) The Company's ability to maintain low cost gas is due to the flexibility of its firm gas supply and transportation contracts. Berkshire, as shown in the attached table, has not purchased a high volume of spot gas in recent years. This is mainly due to the BP Alliance Agreement. In the past, the Company did meet a significant portion of its supply requirement with spot gas, mainly to fill storage.
- (h) A rise in spot gas prices would have an effect upon the Company's CGAC. The impacts would be less than the price increase due to the fact that relevant demand charges would not be affected and because of the pricing provisions within long-term supply contracts.
- (i) Please see the response to Information Request DTE 2-7.
- (j) Please see Attachment DTE 2-29(a).



**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-30:** Please discuss, in relation to the design of the Company's supply portfolio:

- (a) the advantages and disadvantages of short-term contracts versus long-term contracts for gas supplies, transportation, and storage to the Company and its customers.
- (b) the advantages and disadvantages of short-term contracts versus spot market purchases of gas supplies to the Company and its customers.
- (c) the advantages and disadvantages of long-term contracts versus spot market purchases of gas supplies to the Company and its customers.
- (d) the tools and mechanisms that the Company employs to monitor and assess the market for supplies, transportation, and storage.
- (e) how effective have the tools and mechanisms that the Company uses to monitor the market been in the past five years?

**Response:**

- (a) The decision whether to enter into a short-term or long-term contract for gas supplies, transportation, and storage will depend on many factors including current price versus future price projections, availability, supply/demand, and reliability to name a few. Further, during changing market conditions, such as is currently the case while migration to or from transportation is occurring, it is important to maintain flexibility in any contract decisions, especially if it is a long-term contract.
- (b) The decision whether to enter into a short-term or spot market purchase of gas supplies must consider price and reliability. For instance, it is important to have a reliable, firm supply of gas guaranteed to be delivered during the peak season. However, during the off-peak season, if the Company can secure a more favorable price, spot market purchases may be acceptable as long as the supply will be delivered. It should be noted that most gas supply contracts are priced in a similar manner that is index-based. Thus, short-term or spot purchase prices may be comparable. Therefore, reliability is an added consideration to the decision making process.
- (c) See response to (b).
- (d) The Company monitors the market by relying on journals, price quote services such as NYMEX websites, Gas Daily or Inside FERC publications, alliance members, and being in touch with the market through conferences, meetings, and discussions with other LDCs.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Question  
DTE 2-30 (cont'd):**

- (e) The tools and mechanisms the Company has utilized in the past five years to monitor the market have been successful as the Company's cost of gas adjustment is competitive with market prices.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-31:** Regarding the Company's forecast and supply planning process:

- (a) Please provide figures showing the number of heating oil customers, and the total gas volumes involved, that the Company successfully converted to gas heating within the past 5 years.
- (b) Also provide figures showing the number of heating oil customers, and the total gas volumes involved, that converted to gas heating by themselves within the past five years.
- (c) Finally, provide figures showing the number of heating oil customers, and the total gas volumes involved, that the Company plans to convert to gas heating within the next five years.

**Response:** (a) The Following table summarizes the number of heating oil customers converted to heating in the past 5 years:

Year	2000	2001	2002	2003	2004
Conversions from oil	475	252	356	370	321
Annual Dth	40,375	21,420	30,260	31,450	27,285
Cumulative Dth	40,375	61,795	92,055	123,505	150,790

- (b) The Company had 398 customers convert from oil heat "by themselves" (i.e., not responding to a promotional program). These customers represent nearly 31,800 annual Dth.
- (c) Over the next 5 years, the Company projects the conversion of 1,650 customers to gas heating. These conversions equate to annual gas consumption of 130,200 Dth.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-32:** Please quantify what natural gas volumes are assumed to be shifted to third-party marketers by customer class of trade for each of the forecast years.

**Response:** There are no natural gas volumes assumed to be shifted to third party marketers during the forecast period. As illustrated in the response to Information Request DTE 1-43, the number of active transportation customers has remained relatively flat for the past two years. The Company does not believe that there will be any measurable change in the situation during the forecast period.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-33:** Please indicate whether the Company is considering purchasing surplus gas from another LDC, including other Energy East Companies, during the five-year forecast period.

**Response:** The Company will consider all sources of gas supply that will allow it to serve its customers with reliable least cost gas. Purchasing least cost gas from other Energy East Companies through the Energy East / BP Energy Alliance or through one of the individual companies will be supply sources that Berkshire expects to consider for the benefit of its customers.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-34:** Please identify and comment on all major factors which could develop during the forecast period that could materially affect natural gas availability, reliability or costs to the end-users.

**Response:** As was seen in the 2003-2004 period, natural gas prices were greatly affected by reduced production and colder temperatures, as well as possible manipulation of the market. Berkshire has little, if any, control over these circumstances. However, by maintaining a flexible, reliable portfolio, and in conjunction with the Company's participation in the Energy East / BP Energy Alliance, customers can be assured they will receive reliable, least-cost gas supply from the Company consistent with the Company's portfolio objectives.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-35:** Please identify the steps in the Company's resource acquisition process. Detail the process involved when the Company solicits the marketplace for incremental and replacement resources.

**Response:** Initially, when soliciting for incremental and replacement resources in the marketplace, the Company must first determine the need for these additional resources and the timeframe as to when the resources will be required. Generally, the Company will develop a request for proposal ("RFP") as the first step in its efforts to secure an incremental resource. The RFP is intended to identify and review possible options for a replacement or incremental gas supply. The RFP would seek information on both price and non-price factors. Non-price factors to be evaluated could include reliability, financial strength and demonstrated experience in providing gas supply service. The RFP would be structured to address several subjects of particular importance to the Company. First, the necessary gas supply requirements and delivery flexibility requirements would be established. Next, a number of specific "qualifications" for bidders would be established, including the willingness to provide "firm" service of the kind required by Berkshire, nomination flexibility and back-up availability. Potential bidders would also be advised as to the need to confirm their financial strength. Once the Company determined the timetable for the replacement or incremental gas supply, a rigorous schedule for the review of bids, the selection of a short list award group, the determination of the successful bidder, the negotiation of necessary contracts, and the procurement of necessary regulatory reviews and approvals would all be considered. After the completion of the Company's analysis and further negotiation, a final supplier would be selected.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-36:** Please submit a copy of the Company's standard (or most recent) RFP for pipeline commodity. Please refer to the RFP and discuss (1) how it meets the Company's supply strategy and (2) how it helps the Company meet its planning goals and objectives.

**Response:** Please see Attachment DTE-2-36(a) for the Company's most recent RFP which was issued for the replacement of pipeline commodity in 2002. As stated in the RFP on page 2, the Company's objectives in requesting proposals for Firm Gas Supply Service are as follows:

1. To provide reliable and least-cost gas supply service to the Company's customers; and
2. Maintain appropriate levels of supply reliability, diversity and flexibility through gas supply contracts that have provisions to meet the Company's fluctuating weather-related firm demand requirements.



**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-37:** Please describe how the Company ensures that it continually evaluates resource options that are available on the market. Describe the evaluation process.

**Response:** Berkshire generally evaluates resource options through a Request for Proposal ("RFP") process. The Company will pursue this process whenever an appropriate resource requirement arises. The evaluation process consists of: developing and issuing a robust, targeted RFP, reviewing all responses, creating a short list of candidates, meeting with respondents, assessing pricing and operational considerations and compliance to the RFP requirements. The Company will also seek appropriate references to assure the performance ability of the respondent.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-38:** How does the Company foresee the effects of customer migration and reverse migration by class during the forecast period? Does this forecast correspond to past experience for each class?

**Response:** As stated in the response to Information Request DTE 232, the number of transportation customers has remained relatively stable during the past two years. The Company's recent transportation experience has been more in the realm of customers switching suppliers. The Company expects this trend to continue. Please see the response to Information Request DTE 1-44.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-39:** Please refer to page 42 of the Company's filing. Please discuss of the Company's obligations towards grandfathered transportation customers who return to the Company's sales/default service. Refer to Bay State Gas Company, D.T.E. 02-75 in your discussion.

**Response:** As stated in the response to Information Request AG 1-9, the Company continues to maintain firm capacity for all its firm sales customers and capacity recall rights for its non-grandfathered firm transportation customers. However, the Company is not required to maintain capacity for grandfathered firm transportation customers or new-to-the-system customers that elect transportation service immediately (Bay State Gas Company, D.T.E. 02-75). Since the Company is not required to maintain capacity for these grandfathered and new-to-the-system customers, if there was not enough capacity to serve them the Company would have to ascertain whether it could purchase additional capacity. If the capacity was available, an analysis would have to be performed to determine whether it was economical to purchase this capacity. If it was not economical, or the capacity was not available, the customer would be advised they could not be served by the Company on firm sales and if they wanted to remain a firm customer they would have to continue taking service from a marketer.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher

**Date:** May 26, 2005

**Question**

**DTE 2-40:** Please update the G-22 tables in the Company's filing to include the total maximum volumes available to the Company (MDQs), including pipeline and local production, under the Company's existing contractual agreements.

**Response:** Please refer to Attachment DTE 2-40(a).

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-41:** Please update Table G-23 in the Company's filing to include the total maximum volumes available to the Company (MDQs), including pipeline and local production, under the Company's existing contractual agreements.

**Response:** Table G-23 already reflects the total maximum volumes available to the Company (MDQs), including pipeline and local production, under the Company's existing contractual agreements since the table demonstrates the resources available on a peak day.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-42:** Please provide figures (showing the source of the figures) for any new industrial plants and commercial enterprises (and their capacities in terms of energy use) within the Company's service area in the past five years.

**Response:** There are two industrial plants that have initiated gas service in the Company's service area during the past five years. In the response to Information Request DTE 1-40 the customers are referred to on rows 108 and 114, and their annual gas consumption is approximately 65,000 Dth and 120,000 Dth, respectively.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-43:** Please provide figures (showing the source of the figures) for any new industrial plants and commercial enterprises (and their capacities in terms of energy use) that have been licensed or approved for construction within the Company's service area in the next five years.

**Response:** The University of Massachusetts - Amherst is developing a new combined heat plant. This plant and its requirements are reflected in the Transportation Agreement executed with the University. See the response to Information Request AG 1-4.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-44:** Please provide a narrative description explaining the way Berkshire makes its daily and monthly gas purchase decisions.

**Response:** Prior to the beginning of each month, the Company determines what its base load needs should be based on system requirements and expected weather conditions. The base load volumes are then nominated for the entire month using the Company's least cost dispatch supplies. As the month progresses, system requirements and/or weather conditions could change which could result in daily purchases. The daily purchases would be dispatched based on a least cost approach. That is, the Company would consider all resources available – long haul, storage, and peaking – and determine which resources are least cost to dispatch.



**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-45:** Please refer to page 3 of the MAC report. What is the basis for the ten percent accuracy estimate for wind speed information and one-half percent accuracy estimate for temperature data?

**Response:** The ten percent accuracy estimate for the wind speed was an engineering estimate described within the Company's Engineering Department. The one-half percent accuracy estimated for the temperature data is based on manufacturer specification data.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-46:** Please provide a history of the wind recording instrument: when was it installed, was it purchased new, what is the manufacturer's estimate of accuracy, and why has the wind recording instrument never been calibrated?

**Response:** The wind instrument was purchased new and installed approximately in the mid 1980's. The device is manufactured by BELFORT Instruments and the Model Name and Number is called "Aerovane Wind Transmitter: Model 120." The manufactures specification for accuracy is plus or minus 1 mph based on a 0-100 mph. The wind instrument has never been calibrated because the Company had no obvious reason to believe that the instrument was not performing accurately. In addition, the Company does not have a device to perform such a calibration.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-47:** Please refer to page 9 of the MAC study. Please discuss how the Company plans to act upon MAC's recommendations regarding validation of the wind speed data.

**Response:** The Company intends to purchase and install an additional weather station prior to the 2005/2006 heating season and use this device to compare readings with the current device.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** James Harrison  
**Date:** May 26, 2005

**Question**

**DTE 2-48:** Pleases refer to Exhibit 3 to the MAC study. Confirm whether the y-axis represents miles per hour.

**Response:** Yes, the Y-axis is the sum of the average daily wind speed data points measured in miles per hour.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** James Harrison  
**Date:** May 26, 2005

**Question**

**DTE 2-49:** Please refer to pages 4-5 of the Company's filing. Since the source of Exhibit 1 is unknown and MAC recommends use of the EDD formula over estimating EDD on the basis of the graph in Exhibit 1, please explain the purpose of the exercise of interpolating wind speed on the basis of the graph in Exhibit 1.

**Response:** As shown in Appendix B, the Company's weather data base includes consistent HDD and EDD for 18 years. The electronically recorded data base does not include wind speed data. While wind speed data was recorded on dispatcher's daily logs, only EDD and HDD data were transcribed into the machine readable data base. With the exception of the two most recent years, the dispatcher's daily logs showing wind speed data have been discarded and are no longer available for the remainder of the 18 year period. The two years of available logged wind speed data was manually entered into the data base for the purposes of evaluating HDD against newly calculated EDD on a daily basis. Locating and entering additional wind speed data for the remainder of the 18 year period would be impossible. Since the EDD data in the data base was ostensibly generated with the aid of the graph, MAC attempted to digitize the graph and reverse engineer the calculations to compute wind speed data for the remaining 16 years of the data base. Interpolation was necessary to digitize the graph. As explained in MAC's report, this effort was unsuccessful.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Karen L. Zink/Jennifer M. Boucher  
**Date:** May 26, 2005

**Question**

**DTE 2-50:** Please refer to page 29 of the Company's filing. Did the design standard survey performed by Boston Gas Company ask the surveyed companies for historical data on HDD and EDD within their service areas?

**Response:** Please refer to Attachment DTE 2-50(a) for a copy of the referenced Boston Gas survey.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** James Harrison  
**Date:** May 26, 2005

**Question**

**DTE 2-51:** Please refer to page 9 of the MAC report. The effective degree days in Exhibit 9 and the heating degree days in Exhibit 8 indicate that the EDDs range from 4 percent to 6 percent greater than the HDDs, please provide evidence showing how this EDD/HDD relationship compares to the relative size of EDDs and HDDs in other LDC's service territories.

**Response:** In order to respond to the information request, data comparing EDD and HDD from the same weather station is required. Since there is no universal definition of EDD and since wind speeds, the primary causative variable for their difference, can vary significantly from one weather recording station to another, meaningful comparisons of results are questionable. The Berkshire Gas Company does not have information for other service territories, however, MAC conducted an analysis of EDD and HDD data for Fall River Gas Company and North Attleboro Gas Company using the weather data from Providence, RI. For the 30 month period ending February 1999, EDD's were 10% greater than HDD's.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** James Harrison  
**Date:** May 26, 2005

**Question**

**DTE 2-52:** Please refer to page 3 of the MAC study, where it states that the Company's records on effective degree day data date back to 1986. Please reconcile this statement with footnote 6, on page 7 of the MAC study, where it is indicates that the Company maintains a log of wind speed, but not the degree day adder.

**Response:** See the response to Information Request DTE 2-49. The degree day adder can be computed as the difference between the recorded EDD and HDD, both of which exist in the electronic data base. The daily dispatcher logs show the wind speed but not the adder.



**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** James Harrison  
**Date:** May 26, 2005

**Question**

**DTE 2-53:** Please refer to page 13 of the MAC study. Please recreate Schedule 8, as included in Appendix B, using the actual wind speeds measured in Pittsfield for the full 18-year period, rather than using calculated wind speeds for the first 16 years.

**Response:** As discussed in response to Information Request DTE 2-49, Berkshire does not have any additional wind speed data beyond the two years already employed. Without wind speed data for the eighteen year period, the requested analysis cannot be undertaken.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** James Harrison  
**Date:** May 26, 2005

**Question**

**DTE 2-54:** Please refer to page 12 of the MAC study. What is the source of the 43-year EDD data used in reaching the observation that the recommended ten-day cold snap of 661 EDDs is, with the exception of February 1979, greater than any other 10-day cold snap occurring since 1951?

**Response:** MAC only had 30 years of EDD data upon which to analyze the cold snap. The selected 10 day cold snap was greater than any other in the historical period, with the exception of 1979. MAC also determined the HDD 10 day cold snap with a similar 1:30 recurrence probability and observed that with the exception of 1979, no other year in the period 1951 to 2003 exceeded the hypothetical HDD cold snap. Since there is a very high correlation between EDD and HDD, MAC made the assumption that if EDD data had been available for the period from 1951 to 1974, none of the EDD cold snaps would have exceeded the proposed standard.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-55:** Please provide printouts of the source data behind the county-specific GDP figures given in Table 5.2.2.

**Response:** The table below depicts the GDP data used in Table 5.2.2. The three county level Annual GDP values were obtained from Economy.com. The daily GDP values are equal to the Annual GDP values divided by 365.

<b>Berkshires/Franklin/Hampshire GDP</b>	
Berkshire County Annual GDP	\$ 3,636,103,145
Berkshire County Daily GDP	\$ 9,961,926
Hampshire County Annual GDP	\$ 3,054,800,800
Hampshire County Daily GDP	\$ 8,369,317
Franklin County Annual GDP	\$ 4,649,481,000
Franklin County Daily GDP	\$ 12,738,304

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-56:** Please provide a complete description of the background of "Economy.com," including the ownership and management structure of the party that controls the website, the source of its data, the methodologies, inputs, and assumptions behind calculation of county-specific GDP figures, as well as an explanation of why the Company considers this data reliable and relevant.

**Response:** See Response to Information Request DTE 1-56. Economy.com is an employee-owned corporation. Berkshire Gas' sister company, Connecticut Natural Gas, has used Economy.com's forecasts for over 15 years. The Company utilized Economy.com in its last F&SP filing in docket D.T.E. 02-17.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-57:** Please explain the rationale for equating a county's population taking service from the Company to the portion of the county-wide GDP that is dependent on supply of natural gas. Provide evidence to support the Company's response.

**Response:** The overall methodology that the Company employed in its Design Year Cost Benefit Analysis was comparable to New England Gas Company's D.T.E. 04-06 Forecast and Supply Plan for the Fall River and North Attleboro Services Areas. New England Gas' approach was approved by the Department and the Company utilized it as a template for its analysis. The use of county population and county-wide GDP was consistent with the methodology used by New England Gas Company.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-58:** Please discuss the rationale for including GDP figures in the development of the Company's design weather standards.

**Response:** See response to Information Request DTE 2-57.

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-59:** Please provide in digital format the spreadsheets contained in Tables 5.2.1, 5.2.2, and 6.2.1.

**Response:** Please refer to Attachment DTE 2-59(a).

**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-60:** Please provide all data and supporting calculations used derive the standard deviation, probability of outages, recurrence probability, and equivalent days of interruption in Tables 5.2.1 and 6.2.1.

**Response:** Please see the responses to Information Requests DTE 2-57 and DTE 2-59.



**Department of Telecommunications and Energy  
Second Set of Information Requests**

**THE BERKSHIRE GAS COMPANY  
DTE 05-7**

**Witness:** Michael Marks  
**Date:** May 26, 2005

**Question**

**DTE 2-61:** Please refer to section 5.2 of the AEG study. Explain why AEG performed a cost/benefit analysis to select a design-year standard based on heating degree days, rather than effective degree days. Also, indicate how the results of the cost/benefit analysis would have been different had AEG performed the analysis on the basis of effective degree days.

**Response:** Please see response to Information Request DTE 1-13.